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PTO/SB/21 (09-04)

## TRANSMITTAL FORM

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Total Number of Pages in This Submission

Application Number	10/810,350
Filing Date	March 26, 2004
First Named Inventor	Carl L. Hansen
Art Unit	1722
Examiner Name	Robert M. Kunemund
Attorney Docket Number	20174C-004960US

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
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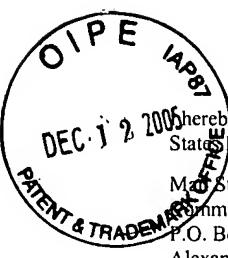
### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Townsend and Townsend and Crew LLP		
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Printed name	Patrick M. Boucher		
Date	December 5, 2005	Reg. No.	44,037

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On December 5, 2005

TOWNSEND and TOWNSEND and CREW LLP

By: Janet L. Newmaker  
Janet L. Newmaker

PATENT

Attorney Docket No.: 20174C-004960US  
Client Reference Nos.: CIT 3484-CIP-CIP-CIP-  
CIP1 and U186.210P1.US

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Carl L. Hansen et al.

Application No.: 10/810,350

Filed: March 26, 2004

For: Microfluidic Protein  
Crystallography Techniques

Customer No.: 20350

Confirmation No.: 8250

Examiner: Robert M. Kunemund

Art Unit: 1722

**SUPPLEMENTAL INFORMATION  
DISCLOSURE STATEMENT UNDER  
37 CFR §§ 1.97 AND 1.98**

Mail Stop Amendment  
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P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the non-US references (in compliance with the requirements of 1287 OG 163) are enclosed.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicants believe that no fee is required for submission of this statement. If a fee is required, however, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

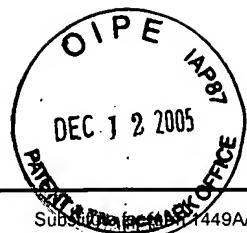
Respectfully submitted,



Date: December 5, 2005

Patrick M. Boucher  
Reg. No. 44,037

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				<i>Complete if Known</i>	
Sheet 1		of 4	Application Number	10/810,350	
			Filing Date	March 26, 2004	
			First Named Inventor	Carl L. Hansen	
			Art Unit	1722	
			Examiner Name	Robert M. Kunemund	
			Attorney Docket Number	20174C-004960US	

<b>U.S. PATENT DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A7	US-2002-0037499 A1	03-28-2002	Quake et al.	
	A8	US-2002-0145231 A1	10-10-2002	Hansen et al.	
	A9	US-2003-0061687 A1	04-03-2003	Hansen et al.	
	A10	US-2003-0096310 A1	05-22-2003	Hansen	
	A11	US-2004-0115731 A1	06-17-2004	Hansen et al.	
	A12	US-2005-0019794 A1	01-27-2005	Nassef et al.	
	A13	US-2005-0205005 A1	09-22-2005	Hansen et al.	
	A14	US-2005-0229839 A1	10-20-2005	Quake et al.	

<b>FOREIGN PATENT DOCUMENTS</b>							
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		Country Code <sup>3</sup>	Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
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<sup>1</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>2</sup> Applicant's unique citation designation number (optional). <sup>3</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>4</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>5</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>6</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				<i>Application Number</i>	10/810,350
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Sheet	2	of	4	<i>Attorney Docket Number</i>	20174C-004960US

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C82	"The Liver Chip," Technology Review, pp. 64-67, March 2003	
	C83	BLACK, HARVEY, "Tiny Technology Promises Tremendous Profits," The Scientist, Vol. 15, No. 21, 4 pages, October 29, 2001	
	C84	CHANG, JUN KEUN et al., "Functional Integration Of Serial Dilution And Capillary Electrophoresis On A PDMS Microchip," Biotechnology and Bioprocess Engineering, Vol. 8, No. 4, pp. 233-239, 2003	
	C85	CHAYEN, NAOMI E., "Protein Crystallization For Genomics: Throughput Versus Output," Journal of Structural and Functional Genomics, Vol. 4, pp. 115-120, 2003	
	C86	CHEN, CHIHCHEN et al., "Gray-Scale Photolithography Using Microfluidic Photomasks," PNAS, Vol. 100, No. 4, pp. 1499-1504, February 18, 2003	
	C87	D'ARCY, ALLAN et al., "The Advantages Of Using A Modified Microbatch Method For Rapid Screening Of Protein Crystallization Conditions," Acta Crystallographica, Vol. D59, pp. 1-3, 2003	
	C88	EYAL, SHULAMIT et al., "Velocity-Independent Microfluidic Flow Cytometry," Electrophoresis, Vol. 23, pp. 2653-2657, 2002	
	C89	FITZGERALD, DEBORAH A., "Making Every Nanoliter Count," The Scientist, Vol. 15, No. 21, 8 pages, October 29, 2001	
	C90	GAO, JUN et al., "Integrated Microfluidic System Enabling Protein Digestion, Peptide Separation, And Protein Identification," Analytical Chemistry, Vol. 73, No. 11, pp. 2648-2655, June 1, 2001	
	C91	GARNO, JAYNE C. et al., "Production Of Periodic Arrays Of Protein Nanostructures Using Particle Lithography," Langmuir, Vol. 18, No. 21, pp. 8186-8192, 2002	
	C92	GROVER, WILLIAM H. et al., "Monolithic Membrane Valves And Diaphragm Pumps For Practical Large-Scale Integration Into Glass Microfluidic Devices," Sensors and Actuators B, Vol. 89, pp. 315-323, 2003	
	C93	HANSEN, CARL. L. et al., "A Robust And Scalable Microfluidic Metering Method That Allows Protein Crystal Growth By Free Interface Diffusion," PNAS, Vol. 99, No. 26, pp. 16531-16536, December 24, 2002	
	C94	HANSEN, CARL. L. et al., "Systematic Investigation Of Protein-Phase Behavior With A Microfluidic Formulator," PNAS Early Edition, 6 pages, 2004	
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	C96	HOSOKAWA, KAZUO et al., "A Microfluidic Device For Mixing Of Capillary-Drive Liquids," IEEJ Trans. SM, Vol. 123, No. 1, pp. 23-24, 2003	

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	C97	JUÁREZ-MARTÍNEZ, G. et al., "High-Throughput Screens For Postgenomics: Studies Of Protein Crystallization Using Microsystems Technology," Analytical Chemistry, Vol. 74, No. 14, pp. 3505-3510, July 15, 2002		
	C98	KUHN, PETER et al., "The Genesis Of High-Throughput Structure-Based Drug Discovery Using Protein Crystallography," Current Opinion in Chemical Biology, Vol. 6, pp. 704-710, 2002		
	C99	LAGALLY, ERIC T. et al., "Fully Integrated PCR-Capillary Electrophoresis Microsystem For DNA Analysis," Lab On A Chip, Vol. 1, pp. 102-107, 2001		
	C100	LIU, JIAN et al., "A Nanoliter Rotary Device For Polymerase Chain Reaction," Electrophoresis, Vol. 23, pp. 1531-1536, 2002		
	C101	MCDONALD, J. COOPER et al., "Poly(dimethylsiloxane) As A Material For Fabricating Microfluidic Devices," Accounts of Chemical Research, Vol. 35, No. 7, pp. 491-499, 2002		
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	C103	NOLLERT, PETER et al., "Crystallization Of Membrane Proteins <i>in Cubo</i> ," Methods in Enzymology, Vol. 343, pp. 183-199, 2002		
	C104	SANTARSIERO, B. D. et al., "An Approach To Rapid Protein Crystallization Using Nanodroplets," Journal of Applied Crystallography, Vol. 35, pp. 278-281, 2002		
	C105	SASSERATH, J. et al., "Rapid Prototyping And Development Of Microfluidic And BioMEMS Devices," IVD Technology, 12 pages, June 2002		
	C106	STEVENS, RAYMOND C., "The Cost And Value Of Three-Dimensional Protein Structure," Drug Discovery World, pp. 35-48, Summer 2003		
	C107	THORSEN, TODD et al., "Dynamic Pattern Formation In A Vesicle-Generating Microfluidic Device," Physical Review Letters, Vol. 86, No. 18, pp. 4163-4166, April 30, 2001		
	C108	THORSEN, TODD et al., "Microfluidic Large-Scale Integration," Science, Vol. 298, No. 5593, pp. 580-584, October 18, 2002		
	C109	VAN DER WOERD, MARK et al., "Lab-On-A-Chip Based Protein Crystallization," National Aeronautics and Space Administration and Caliper, pp. 1-27, October 25, 2001		
	C110	VAN DER WOERD, MARK et al., "The Promise Of Macromolecular Crystallization In Microfluidic Chips," Journal of Structural Biology, Vol. 142, pp. 180-187, 2003		
	C111	VELEV, ORLIN D., "On-Chip Manipulation Of Free Droplets," Nature, Vol. 426, pp. 515-516, December 4, 2003		
	C112	WEBER, PATRICIA C. et al., "Applications Of Calorimetric Methods To Drug Discovery And The Study of Protein Interactions," Current Opinion in Structural Biology, Vol. 13, pp. 115-121, 2003		

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	C113	WESELAK, MARK et al., "Robotics For Automated Crystal Formation And Analysis," Methods in Enzymology, pp. 1-13, 2002		
	C114	WHITESIDES, GEORGE M. et al., "Flexible Methods For Microfluidics," Physics Today, pp. 42-48, June 2001		
	C115	WU, HONGKAI et al., "Fabrication Of Complex Three-Dimensional Microchannel Systems In PDMS," J. Am. Chem. Soc., Vol. 125, No. 2, pp. 554-559, 2003		
	C116	YEH, JOANNE I., "A Manual Nanoscale Method For Protein Crystallization," Acta Crystallographica, Vol. D59, pp. 1408-1413, 2003		
	C117	ZHAO, ZHAN, et al., "An Integrated Biochip Design And Fabrication," Proceedings of SPIE, Vol. 4936, pp. 321-326, 2002		
	C118	ZHENG, BO et al., "A Droplet-Based, Composite PDMS/Glass Capillary Microfluidic System For Evaluating Protein Crystallization Conditions By Microbatch And Vapor-Diffusion Methods With On-Chip X-Ray Diffraction," Angew. Chem., pp 1-4, 2004		

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